

**RECEIVED
CENTRAL FAX CENTER**

FEB 01 2007

Transmitted Via Facsimile to (571) 273-8300

Attorney Docket: 129491 (12553-1017)
PATENT

Remarks

Claims 1, 2, 4-12, 15-18, 20, 22, 23, and 25 are pending in the present application. Claims 9 and 23 have been amended herein. Claims 11, 20, and 22 have been canceled herein. Claims 26-28 have been newly added herein. Upon entry of this amendment, claims 1, 2, 4-10, 12, 15-18, 23, and 25-28 will be pending in the present application. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1, 2, 4-10, 12, 15-18, 23, and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,490,476 (Townsend) in view of U.S. Patent No. 5,971,767 (Kaufman).

Claim 1 recites a method for combining an anatomic structure and metabolic activity for an object, the method comprising, among other things, identifying a region of interest (ROI) in the fused volume by distinguishing the density of the ROI from the densities of regions outside the ROI.

Neither Townsend nor Kaufmann, considered alone or in combination, describe or suggest identifying an ROI in the fused volume by distinguishing the density of the ROI from the densities of regions outside the ROI, as recited in claim 1. On page 2 of the outstanding Office Action, the Examiner asserts that Kaufmann describes identifying a region of interest (ROI) in the fused volume by distinguishing the density of the ROI from the densities of regions outside the ROI. Applicants disagree. The Examiner notes that Kaufmann states "defining the portion of the organ which is to be examined..." (Column 2, lines 54 and 55). However, Kaufmann describes, at step 105, allowing "the operator to define the portion of the selected organ to be examined" by viewing "a two dimensional slice overview map to indicate the section to be examined." (Column 5, lines 24-26). Kaufmann describes that "[a] starting point and finishing point of a path to be viewed can be indicated by the physician/operator" and "[a] conventional computer and computer interface (e.g., keyboard, mouse or spaceball) can be used to designate

Transmitted Via Facsimile to (571) 273-8300

Attorney Docket: 129491 (12553-1017)
PATENT

the portion of the colon which is to be inspected". (Column 5, lines 25-31). Accordingly, the operator selects the ROI that is to be viewed by designating the portion of the colon which is to be inspected. Nowhere does Kaufmann describe or suggest that the operator selects the starting and ending points by distinguishing the density of the ROI from the densities of regions outside the ROI. The Examiner also states that:

"Kaufmann describes assigning opacity coefficients to each voxel within the images. 'A high density scanned voxel will indicate either a wall or other dense matter besides simply open space. An operator or program routine could then change the opacity coefficient of a voxel or a group of voxels to make them appear transparent or semi-transparent', thereby defining a region of interest. See Column 13, lines 14-52."

However, Applicants respectfully disagree that column 13 of Kaufmann describes identifying an ROI by distinguishing the density of the ROI from the densities of regions outside the ROI. Rather, Kaufmann describes changing a transparency of a portion of the colon such that other portions can be seen through the transparent portion. Although the opacity coefficients of the various portions of the colon are initially determined based on their density, the operator or a routine changes the opacity coefficient of the portions to make them more or less transparent, and therefore more or less visible. Changing the transparency of different tissues to make them more or less visible is not the same as distinguishing the density of the ROI from the densities of regions outside the ROI. Rather, Kaufmann describes distinguishing between different portions of the colon by artificially changing the transparency of the different portions. Kaufmann therefore does not describe or suggest identifying an ROI by distinguishing the density of the ROI from the densities of regions outside the ROI. Townsend does not make up for the deficiencies of Kaufmann. Accordingly, claim 1 is submitted as patentable over Townsend in view of Kaufmann.

Transmitted Via Facsimile to (571) 273-8300

Attorney Docket: 129491 (12553-1017)
PATENT

Claims 9 and 23, as amended, are submitted to be patentable over Townsend and Kaufmann for at least the reasons set forth above with respect to claim 1.

Further, it is respectfully submitted that the dependent claims recite additional features that are neither anticipated nor rendered obvious by the prior art.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



Charles H. Livingston, Reg. No. 53,933
THE SMALL PATENT LAW GROUP LLP
611 Olive Street, Suite 1611
St. Louis, MO 63101
(314) 584-4080
(314) 584-4061 (Fax)